SMARDA, JAN

Treti doplnek k Mechum Slovenska. Bratislava, Vyd. Slovenskej akademie vied, 1955. 42 p. (Slovenska akademia vied. Sekcia 2. Prace. Seria biologicka, sv. 1, zo it 9) (Third supplement to Mechy Slovenska (Mosses of Slovakia). German and Russian summaries. bibl.)

SOURCE: East European Accessions list, (EEAL) Library of Congress, Vol. 5, No. 8, August 1956.

ROSENBERT, Mita; ŠMARDA, Jan

Comparison of certain properties of bacteriophages produced by lysogenic bacteria and of bacteriophages from passages. Cesk. biol. 4 no.8:449-456 Aug 55.

1. Ustav pro obecnou biologii lekarske fakulty university v Brne.

(BACTERIOPHAGE,
of lysogenic bact. & their passages, comparison.)

ROSENBERG, Mita; SMARDA, Jan; JAKUBIK, Jaroslav

Production of certain types of bacteriophage by lysogenic strains of Staphylococcus aureus. Cesk. biol. 4 no.8:457-466 Aug 55.

1. Ustav pro obecnou biologii lekarske fakulty university v Brne.

(MICROCOCCUS PYOGENES,
bacteriophage of lysogenic strains.)
(BACTERIOPHAGE,
of Micrococcus pyogenes, lysogenic strains)

SMARDA, J.

Smarda, J. Elyna myosuroides (Vill.) Fritsch in the High Tatra. p.65

Vol. 10, no. 1, 1955 BIOLOGIA Bratislava, Czechoslovakia

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 2 February, 1956

ŠŤÁRDA, J.

Vegetative cover of the bare erosions and tundra soils in the Tatra Mountains. p.5. (BIOLOGICKE PRACE, Vol. 2, no. 8, 1956, Bratislava, Czechoslovakia.)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 12, December 1957. Incl

SMARDA, J.

3846. **Physical ultrafiltration of serum proteins as a model [for the study] of natural ultrafiltration processes.** D. Wiedermann and J. Smarda *Schweiz. med. Wschr.*, 1956, **86**, 930—931 (Inst. f. allg. und exp. Path. Masaryk-Univ., Brno, Czechoslovakia).—The *in vitro* production of protein-containing fluids resembling pathological body fluids by ultra filtration of human serum is described. Characteristic electrophoretic patterns may be obtained by careful selection of the pore size of the collodion membrane. (German)

G. W. CAMBRIDGE

2.

1290. INDUCTION OF BACTERIOPHAGES BY ULTRAVIOLET LIGHT IN A NATURALLY POLYLYSOGENIC STRAIN OF STAPHYLOCOCCUS AUREUS - Šmarda J., Inst. of Gen. Biol., Med. Fac., Univ. of Brno - FOLIA BIOL. (Praha) 1957, 3/3 (160-169) Graphs 3

An attempt was made to resolve the problem of whether every cell of a polylysogenic strain produced both phages when lysed after induction by UV light, or whether certain cells always produce only one type. The work was carried out with a naturally polylysogenic strain LS 2 of Staphylococcus aureus. The experiments were arranged so that the bouillon cultures of LS 2 were irradiated by UV light in a quartz glass container; after certain exposures patterns were taken from the cultures, incubated and filtered through collodion membranes. The filtrates, after dilution, were tested on 2 indicator strains, CS 4 and CS 13, of M. pyogenes aureus, each of these strains detecting one of the phages produced by LS 2: F 4 and F 13. The quantitative relation of these 2 phages, the production of which could be greatly induced by UV, after increasing doses of irradiation was followed. In every normal culture of LS 2, the proportion of the titres of F 13 and F 4 was very nearly in the ratio of 3 : 1. In the course of induction in visible light, the number of plaque-forming particles of F 13 increased far more that that of F 4. The titre of F 13 increased by as much as 400 times, while that of F 4 at most 12 times with the same dose. The proportion of the titre of F 13 to that of F 4 then reached the ratio of 367:1, in one specimen. When irradiating the cultures of LS 2 in the dark, completely different results were obtained, which were due to the absence of photoreactivation effect of visible light: the titre of F 13 increased at most 6 times only while that of F 4 as much as 34 times. It is concluded that one phage was probably liberated by cells which did not produce the other phage simultaneously, although potentially every cell could produce both in a constant ratio.

Nermut - Brno

MIEDEMANN, D.; SMARDA, J.

Permeability of the capillary wall to proteins. Cesk. fysiol. 6 no.2: 201-207 1957.

1. Ustav pro vseobecnou a experimentalni pathologii lekarske fakulty university v Brne Ustav pro obecnou biologii lekarske fakulty university v Brne.

(CAPILLARIES, physiology,
permeability to proteins (Cz))
(PROTEINS
capillary permeability (Cz))

WIEDERMANN, D.; SMARDA, J.

Notes on the Permeability of the Capillary Walls to Proteins. Physiol. bohem. 6 no.2:232-239 1957.

1. Institute of General and Experimental Pathology, Medical Faculty, Brno University, Institute of General Biology, Medical Faculty, Brno University.
(CAPILLARY PERMEABILITY
to proteins)

[redacted], V.

"Natural and artificial [illegible] of strains of Staphylococcus aureus."

CESKOSLOVENSKA MIKROBIOLOGIE, Praha, Czechoslovakia, Vol. 3, no. 6, 1958

Monthly List of East Europe Accessions (EEAI), LC, Vol. 8, No. 6, Sept 59
Uncles

[redacted], J.

SCIENCE

[redacted], J. A remarkable find of the lichens, Fulgensia fulgens and Squamaria lentigera in the Orie valley of Slovakia. p. 385.

Vol. 12, No. [redacted], 1958.

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 12, Dec. '58

[redacted], J; [redacted]SKI, J

"Eremonotus myriacarius (Carr.) Peers. In the High Tatra in Czechoslovakia."

BIOLOGIA, Bratislava, Czechoslovakia, Vol. 13, no. 6, 1958

Monthly List of East Europe Accessions (EEAI), LC, Vol. 8, No. 6, Sept 59
Unclas

SMARDA, J.

"A new place of occurrence of Carex pediformis C.A.M. in Slovakia."

BIOLOGIA, Slovenska akademia vied, Bratislava, Czechoslovakia, Vol. 13, No. 12, 1958.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 8, August 1959
Uncl.

SMARDA, J.

Incidence and manifestations of colicinogeny in strains of Escherichia coli. J.hyg.epidem.,Praha 4 no.2:151-165 '60.

1. Department of General Biology, Medical Faculty, Masaryk University, Brno.
(ESCHERICHIA COLI)

SMARDA, J.

The latent period after u.v. induction of phage and colicin synthesis. Folia microbiol 6 no.1:44-48 '60. (EEAI 10:5)

1. Department of Biology, Medical Faculty of the J.E. Purkyne University, Brno.
(BACTERIOPHAGE) (COLICINS) (ESCHERICHIA COLI)

SMARDA, Jan

Mosses growing on the mylonite substrata in the Tatra Mountains.
Biologia 15 no.3:193-207 '60. (EEAI 9:8)

1. Katedra botaniky Masarykovy university, Brno.
(SLOVAKIA--MOSSES)
(MYLONITE)

SMARDA, Jan

A relict plant community with prevalent Carex paniculata in the western part of the Tatra Mountains. Biologia 15 no.5:344-353 '60.
(EEAI 9:11)

1. Katedra botaniky, Masarykovy university, Brno.
(SLOVAKIA--CAREX PANICULATA)

SMARDA, Jan

Notes on the floristic research in the Tatra Mountain area.
Biologia 15 no.10:779-784 '60. (EEAI 10:5)

1. Katedra botaniky Masarykovy university v Brne.
(CZECHOSLOVAKIA--FLORA) (TATRA MOUNTAINS)

SMARDA, Jan

Problems concerning studies of the biology of species, ecology, and phytocoenology. Biologia 15 no.10:797-798 '60. (EEAI 10:5)

1. Katedra botaniky Masarykovej university v Brne.
(BOTANY)

SMARDA, J.

Determination of lysogenic properties of human strains of Escherichia coli. Folia microbiol 6 no.4:225-230 '61.

1. Department of General Biology, Medical Faculty of J.E. Purkyne University, Brno.

(BACTERIA)

SMARDA, Jan

Lichens on granite blocks in the Tatra Mountains. Biologia 16 no.3: 216-217 '61. (EEAI 10:9/10)

1. Geobotanicka laborator Ceskoslovenske akademie ved, pobocka v Brne.

(LICHENS)

SMARDA, Jan, doc., dr.

Warm-loving plants in the upper run of Cierna Voda bellow the Skalne Vrata in the Belanske Tatra Mountains. Biologia 16 no.8:601-602 '61.

1. Geobotanicka laborator Ceskoslovenske akademie ved, Brno, Stara 18.

(PLANTS)

SMARDA, J.; VRBA, M.

The microscopic picture of cells and penicillin-induced spheroplasts of Escherichia coli exposed to the action of colicin. Folia microbiol 7 no.2:104-108 '62.

1. Department of Biology, Medical Faculty, Purkyne University, Brno.

(ESCHERICHIA COLI pharmacol)
(ANTIBIOTICS pharmacol)
(PENICILLIN pharmacol)

SKYBOVA, Marta; SMARDA, Jan

A survey of the flora in the Branna River Basin in Hruby Jesenik Mountains. Prir cas slezsky 23 no.2:193-206 '62.

SMARDA, J.

Lysogeny and Bacteriocinogeny. Folia microbiol. 8 no. 4:254-263 Jl '63

1.Department of Biology, Faculty of Medicine, Purkyne University, Brno.
(BACTERIOPHAGE) (ANTIBIOTICS) (ESCHERICHIA COLI)
(GENETICS) (BACTERIA)

SHAH[illegible].

Microscopic picture of lysozyme and glycine spheroplasts of Escherichia coli exposed to colicin. Folia microbiol. (Praha) 10 no.3:179-181 My'65.

1. Department of Biology, Faculty of Medicine, Purkyne University, Brno.

[illegible], [illegible]

Contribution to the typing of [illegible]. Scr. med. fac. med. Brunensis 38 no.4:157-167 [illegible]65.

1. Katedra obecne biologie lekarske fakulty University J.E. Purkyne, Brno (vedouci prof. MUDr. CSc. Oldrich Necas).

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001651420010-1"

EAST GERMANY/CZECHOSLOVAKIA

SMARDA, J., Biological Institute of the Medical Faculty, J.E. Purkyne University, Brno, Czechoslovakia (Original-language version not given).

"An Inhibitor of Colicin G Produced by Proteus Mirabilis"

Berlin, Zeitschrift fuer Allgemeine Mikrobiologie, Vol 6, No 4, 1966; pp 339-340.

Abstract: A substance is described which occurs in the cell-free filtrate of the culture and inactivates certain colicines in a type-specific manner. Many of the properties of this substance (especially its considerable resistance to heat, in addition to its type-specificity) indicate that it is a type of cell-free colicin receptor, though the possibility that it is a specific protease is not totally excluded. 4 References, 2 of which East German, 1 Belgian and 1 American. (Manuscript received 24 Feb 66).

1/1

18 1210 2408

30177
S/078/61/006/012/003/011
B110/B147

AUTHORS: Bol'shakov, K. A., Fedorov, P. I., Smarina, Ye. I., Smirnova, I. N.

TITLE: Study of the common solubility of magnesium and gallium in aluminum

PERIODICAL: Zhurnal neorganicheskoy khimii, v. 6, no. 12, 1961, 2727-2731

TEXT: The authors studied the ternary system aluminum - magnesium - gallium, and examined the common solubility of magnesium and gallium in aluminum at 290, 240, and 20°C. The alloys were molten from 99.6 and 99.9% Al, 99.91% Mg, and 99.97% Ga with a flux consisting of 46% of $MgCl_2$, 35% of KCl, 8% of $CaCl_2$ + NaCl, and 11% of $BaCl_2$. For 14 days to 3 months, the samples were annealed in evacuated glass ampuls and tempered in water. The common solubility was determined by microstructural analysis (etching agent: 2.5% HNO_3; 2.0% NaOH) and by determination of hardness according to Vicker (diamond pyramid, load: 10 kg). When the equilibrium limit of

Card 1/6

Study of the common solubility of ...

homogeneity is reached, separations in the second phase increase, whereas the content of incidental impurities in phase transition remains unchanged. Microstructural studies showed the following phase regions : (1) that of the homogeneous aluminum-base solid solution. α_{Al}; (2) two-phase regions. $\alpha + \beta$, $\alpha + z$, $\alpha + Mg_2Ga$, $\alpha + MgGa_2$, $\alpha + Ga$; (3) three-phase regions: $\alpha + \beta + z$; $\alpha + z + Mg_2Ga$; $\alpha + Mg_2Ga + MgGa$. The solid aluminum-base solution was found by alkaline etching, the β-phase (slightly yellow) and z-phase (black) were found by weak HNO_3 (2.5%), Mg_2Ga and MgGa phases were found by alkaline etching. Transitions from homogeneous into binary and ternary and from binary into ternary regions were characterized by salient points in the composition - hardness curves. This is in good agreement with data obtained by microstructural analysis. In the region of low Ga additions ($\lesssim$ 1% by weight), the common solubility of Mg and Ga first increases at all temperatures, and then slightly drops again. It increases rapidly when the Al -Ga side is approached. There are 8 figures and 10 references: 1 Soviet and 9 non-Soviet. The two references to English-language publications read as follows: M. Hansen. Constitution of binary alloys, 1958, 105; I. Clare. J. Inst. Metals, 86, 43[illegible] (1958)

Card 2/[illegible]

Equilibrium in the Mg-rich part...

4 : 1) were examined, and one passing through the points of the compounds Al_3Mg_4 and Mg_5Ca_2. In sample 1:9, the constitution diagram consists of the primary crystallization lines of the δ-solid solution on Mg base and primary precipitation of the γ-phase with a flat peak at 460°C. The two lines intersect at 67.5% of Mg and 435°C. A wide γ-δ two-phase range exists in the solid state. A homogeneous zone of the γ-phase is believed to exist at 50-57% weight Mg. In ratio 1 : 4, the liquidus consists of the precipitation lines of the δ-solid solution and the γ-phase which intersect at 66.5 wt % Mg and 425°C. The maximum of the γ-phase liquidus curve falls to 454°C. In the $\delta+\gamma+Mg_5Ca_2$ three-phase range (ternary eutectic at 380°C) and $\delta+\gamma$ two-phase range sections it was found that in ratio 2 : 3 the $\delta+\gamma$ range was remarkably narrow in the solid state. In ratio 3 : 2 the liquidus line corresponded to the crystallization of the δ-solid solution and the γ-phase. In the $\delta+Mg_5Ca_2$ range, in ratio 4 : 1 the liquidus consists of the line of primary precipitation of the solid solution on Mg base, and of the binary Mg_5Ca_2 compound. The intersection point was at 57.5 wt % Mg and 405°C. The section $\delta+\gamma+Mg_5Ca_2$ and $\delta+Mg_5Ca_2$ was taken. Since the Al_3Mg_4-Mg_5Ca_2 section

Card 2/5

Equilibrium in the Mg-rich part...

intersects the radical cuts proceeding from the Mg vertex of the triangle (Fig. 2), its examination complements that of the remaining sections. The diagram (Fig. 3,3) is quasibinary (eutectic at 388°C). The microhardness of the six samples was 293 - 307 kg/mm^2, and that of the Mg_5Ga_2 phase 242 - 256 kg/mm^2. The Al_3Mg_4 - Mg_5Ga_2 section in the Mg-Al-Ga system is quasibinary and cuts off the triangle Mg-Al_3Mg_4-Mg_5Ga_2 representing an elementary ternary system. The crystallization field of the solid solution on Mg base, lying on the liquidus surface of this system, is adjacent to the crystallization fields of the γ-phase of Al-Mg and of Mg_5Ga_2 of Mg-Ga. The lines of the monovariant equilibrium E_1E, E_2E, E_3E correspond to the reactions liq $\rightleftharpoons$ δ + γ, liq $\rightleftharpoons$ δ + Mg_5Ga_2, liq $\rightleftharpoons$ γ + Mg_5Ga_2. The point of equilibrium was found at 62 wt % Mg, 26 wt % Ga, 13 weight % Al, and 380°C. Combined solubility, showed a decrease from 9.5 (Al + Ga) at 340°C to 4 wt % at 20°C. K. I. Marinina is thanked for assistance in the experiments. There are 7 figures and 11 references: 1 Soviet and 10 non-Soviet. The three references to English-language publications read as follows: M. Hansen. Constitution of binary alloys, 1958, p. 105. V. Hume-Rothery, G. Raynor. J.

Card 3/5

L 10653-63
EWP(q)/EWT(m)/BDS--AFFTC/ASD--JD
ACCESSION NR: AP3001219 S/0078/63/008/006/1412/1418

56

AUTHOR: Bol'shakov, K. A.; Fedorov, P. I.; Smarina, Ye. I.

TITLE: Beta prime phase of aluminum-magnesium system.

SOURCE: Zhurnal neorganicheskoy khimii, v. 8, no. 6, 1963, 1412-1418

TOPIC TAGS: aluminum, magnesium, microhardness, interplanar distances, Ga, In, Tl

ABSTRACT: The section of the Al-Mg diagram between 35-50 wt. % Mg was investigated. The Beta prime phase was formed by cooling melts containing 40-43 wt. % Mg at about 2.5 degrees per minute; more rapid cooling gave Gamma and Gamma + Beta phases; cooling at 0.5 degrees per minute crystallized the Beta + Gamma phases in a eutectic environment. Microhardness and interplanar distances were measured in poured samples (41-41.5% Mg, Beta prime phase) prepared under incomplete annealing. A study of the possibility of stabilizing the Beta prime phase in crystallization from the melt by addition of Ga, In or Tl showed that only Ga stabilized effectively. "In conclusion, we thank Ye. S. Makarov for help and consultation in conducting the X-ray investigations. Orig. art. has: 4 tables and 4 figures.

ASSOCIATION: none

Card 1/2

L 8834-65 EWT(m)/EPR/EWP(q)/EWP(b) Ps-4 ASD(m)-3/AS(mp)-2 JD

B

ACCESSION NR: AP4043575 S/0078/64/009/008/1883/1897

AUTHOR: Bol'shakov, K. A.; Fedorov, P. I.; Smerina, Ye. I.; Smirnova, I. N.

TITLE: The Al-Mg-Ga system

SOURCE: Zhurnal neorganicheskoy khimii, v. 9, no. 8, 1964, 1883-1897

TOPIC TAGS: aluminum magnesium gallium system, ternary alloy, alloy phase diagram, alloy phase structure

ABSTRACT: Alloys of the Al-Mg-Ga system in the as-cast, quenched, and annealed conditions were investigated by thermal analysis and x-ray diffraction pattern examination. The compositions of investigated alloys melted from 99.6 or 99.9% pure Al, 99.9% pure Mg, and 99.97% pure Ga were along the sections parallel to the Al-Mg side of the concentration triangle and had a constant Ga content of 5, 10, 15, 20, 25, 30, and 35 wt%. In addition, Al-Mg_5Ga_2, Mg_5Ga_2—36% Mg, 66% Al sections, and a section with a constant 25 wt% Mg content were investigated. On the basis of the obtained results, phase diagrams of the Al-Mg-Ga system and investigated sections, and the isotherms at

Card 1/3

L 8834-65

ACCESSION NR: AP4043575

300 and 20C were plotted (see Fig. 1 of the Enclosure). In the Al-Mg-Ga phase diagram a ternary intermetallic phase, Z, which forms an extensive region of solid solutions and can be regarded as a berthollide-type phase, was identified. The structure of the Z phase is highly similar to the structure of the β phase obtained under conditions of incomplete annealing of the Al-Mg system. At the temperature of the liquids' surface, the Al-Mg-Ga diagram is characterized by the absence of strictly binary sections and by the presence of quasi-binary sections. In solid condition, however, two-phase regions are clearly distinguishable between adjacent single-phase regions. Orig. art. has: 13 figures and 1 table.

ASSOCIATION: none

SUBMITTED 29May63 ATD PRESS: 3106 ENCL: 01

SUB CODE: MM NO REF SOV: 005 OTHER: 009

Card 2/3

L 8834-65
ACCESSION NR: AP4043575

ENCLOSURE: 0

0

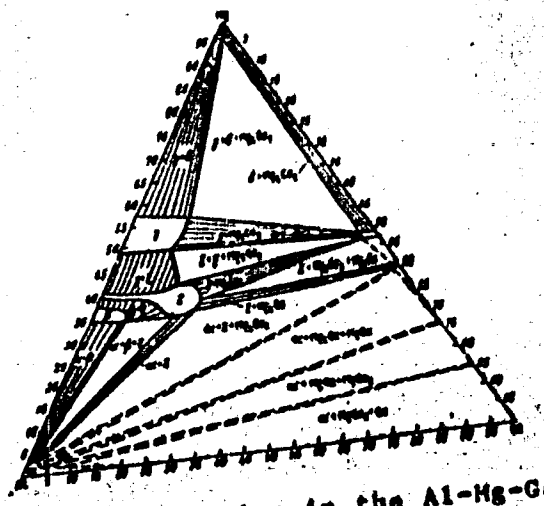


Fig. 1. Phase distribution in the Al-Mg-Ga system at 20C

Card 3/3

L 47725-65 EWT(d)/T IJP(c)

ACCESSION NR AM4047287 BOOK EXPLOITATION 16 84 81

Smirnov, Vladimir Ivanovich; Lebedev, Nikolay Andreyevich

Constructive theory of functions of the complex variable (Konstruktivnaya teoriya funktsiy kompleksnogo peremennogo), Moscow, Izd-vo "Nauka", 1964, 438 p. biblio., indices. 7,500 copies printed.

TOPIC TAGS: function, mathematics, polynomial, complex variable

TABLE OF CONTENTS (abridged):

Card 1/2

L 47725-65

ACCESSION NR AM4047287

SUBMITTED: 11Mar64

SUB CODE: MA

NO REF SOV: 155

OTHER: 032

Card 2/2

[illegible]

Tons[illegible]

[illegible] of the [illegible] abnormalities. Vest. oto-rin. 14, No. 5, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. UNCLASSIFIED.

[illegible], F.

[illegible]'s Little Geographic Atlas; a criticism. p. 265 (Geodezia es Kartografia Vol. 8, no. 3, 1956 Budapest)

SO: Monthly List of East European Accession (EEAI) LC, Vol. 6, no. 7, July 1957. Uncl.

SMAROGLAY, Ferenc, Dr.

"Geography of Hungary" by Dr. Marton Pecsi Bela Sarfalvi. Reviewed by Ferenc Smaroglay. Foldr kozl 9 no.1:88-91 '61.

MIKLOS, Gyula; SMAROGLAY, Ferenc

The 13th itinerary meeting of the Hungarian Geographical Society; Gyula, September 19-21, 1959. Foldr kozl 8 no.1:101-109 '60.

1. Fovarosi Pedagogiai Szeminarium tanszekvezeto tanara, Budapest (for Smaroglay).

KAZAR, Leona; SMAROGLAY, Ferenc, dr.; TOTH, Aurel, dr., kozepiskolai tanar

Report on the work of the Division of the Methodology of Teaching. Foldr kozl 10 no.3:301-302 '62.

1. Magyar Foldrajzi Tarsasag Oktatasmodszertani Szakosztalyanak elnoke; Kozponti Pedagogus Tovabbkepzo Intezet tanszekvezeto tanara; "Foldrajzi Kozlemenyek" szerkeszto bizottsagi tagja (for Kazar). 2. Vezeto szakfelugyelo; Magyar Foldrajzi Tarsasag Oktatasmodszertani Szakosztalyanak tarselnoke (for Smaroglay). 3. Szakfelugyelo; Magyar Foldrajzi Tarsasag Oktatasmodszertani Szakosztalyanak titkara (for Toth).

NOWAK, Jan; MARKIEWICZ, Marian; SMARSZ, Czeslaw

Bromsulphalein test. Polski tygod. lek. 11 no.43:1824-1827 22 Oct 56.

1. (Z I Kliniki Chorob Wewnetrznych A.M. w Poznaniu; Kierownik: prof. dr. med. St. Kwasniewski) adres: Poznan, 1 Kl. Chor. Wewn A.M., ul. Dluga 1/2.

(LIVER FUNCTION TESTS,
phenolphthalein clearance test (Pol))
(PHENOLPHTHALEIN DYES,
liver funct. tests (Pol))

SZERESZEWSKA, Halina; JASINSKI, Kazimierz; SMARSZ, Czeslaw

Hypopotassemia in nephrotic syndromes. Polskie arch. med. wewn. 31 no.3:413-420 '61.

1. Z I Kliniki Chorob Wewnetrznych A.M. w Poznaniu Kierownik: prof. dr med. S. Kwasniewski.

(POTASSIUM blood) (NEPHROSIS blood)

SKALMOWSKI, Tadeusz; SMARSZ, Czeslaw

Electrolytes in the blood serum in children with water metabolism disorders in the acute stage of infectious hepatitis. Przegl. epidem. 16 no.2: 155-157 '62.

1. Z Oddzialu Zakaznego Wojewodzkiego Szpitala Dziecicego im. B. Krysiewicza w Poznaniu Dyrektor Szpitala: dr med. M. Stabrowski.
(HEPATITIS INFECTIOUS metab) (WATER ELECTROLYTE BALANCE)

SZERESZEWSKA, Halina; SMARSZ, Czeslaw

Serum lipoproteins in hypertonic disease. Polskie arch. med. wewn. 26 no.1:55-66 1956.

1. Z I Kliniki Chorob Wewnetrznych A. M. w Poznaniu Kierownik: Prof. dr. med. S. Kwasniewski I Klin. Chor. Wewn. A. m. W Poznaniu. ul. Dluga 1/2.

(LIPOPROTEINS, in blood
in hypertension. (Pol))
(HYPERTENSION, blood in
lipoproteins. (Pol))

JASINSKI, Kazimierz; RASZEJA, Bozena; SMARSZ, Czeslaw

Clinical value of determination of sodium paraaminohippurate and sodium thiosulfate clearance time. Polskie arch. med. wewn. 26 no. 8:1197-1199 1956.

(KIDNEY FUNCTION TESTS,
sodium p-aminohippurate & sodium thiosulfate clearance time tests (Pol))
(HIPPURATES, in blood,
sodium p-aminohippurate clearance time determ. in kidney funct. test (Pol))
(THIOSULFATES, in blood,
sodium thiosulfate clearance time determ. in kidney funct. test (Pol))

RASZEJA-WANIC, Bozena; JASINSKI, Kazimierz; SMARSZ, Czeslaw

Therapeutic value of blood transfusion in kidney diseases.
Polskie arch. med. wewn. 26 no.8:1225-1233 1956.

1. Z I Kliniki Chorob Wewn. A.M. w Poznaniu. Kierownik: prof. dr. med. S. Kwasniewski, Poznan, I Klinika Chor. Wewn. A.M.
(KIDNEY DISEASES, therapy,
blood transfusion (Pol))
(BLOOD TRANSFUSION, in various diseases,
kidney dis. (Pol))

MAZUROWA, Aleksandra; CHODERA, Leon; SMARSZ, Czeslaw

Modification of blood electrolytes in post-insulin slight hypoglycemic states and its effects on electrocardiographic curve. Polskie arch. med. wew. 26 no.9:1349-1364 1956.

1. Z I Kliniki Chorob Wewnetrznych A. M. Poznaniu, Kierownik: prof. dr. med. S. Kwasniewski, Adres autora: Poznan, ul. Dluga 1/2.

(ELECTROLYTES, in blood,
in hyperinsulinism, eff. on ECG (Pol))
(HYPERINSULINISM, blood in,
electrolytes, eff. on ECG (Pol))
(ELECTROCARDIOGRAPHY,
eff. of blood electrolytes in hyperinsulinism (Pol))

CHODERA, Leon; MAZUROWA, Aleksandra; SMARSZ, Czeslaw

Studies on correlation between metabolic changes manifested by electrolytes and carbohydrates and electrocardiographic changes following adrenalin therapy. Polskie arch. med. wewn. 27 no.10: 1319-1333 1957.

1. Z I Kliniki Chorob Wewnetrznych A.M. w Poznaniu Kierownik: prof. dr med. S. Kwasniewski. Adres autora: Poznan, ul. Dluga 1/2 I. Klin. Chor. Wewn. A.M.

(EPINEPHRINE, effects,
on blood sugar, potassium & on ECG (Pol))
(BLOOD SUGAR, effect of drugs on,
epinephrine, relation to blood potassium & ECG (Pol))
(POTASSIUM, in blood,
eff. of epinephrine, relation to blood sugar & ECG (Pol))
(ELECTROCARDIOGRAPHY,
eff. of epinephrine, relation to blood sugar & potassium (Pol))

RASZEJA-WANIC, Bozena; JASINSKI, Kazimierz; SMARSZ, Czeslaw

Clinical value of the determination of the thiosulfate space in disorders of water & mineral metabolism. Polskie arch. med. wewn. 28 no.4:504-505 1958.

1. Z I Kliniki Chorob Wewnetrznych A.M. w Poznaniu Kierownik: prof. dr med. S. Kwasniewski.

(BODY FLUID BALANCE,
disord., clin. value of determ. of extracellular thiosulfate space (Pol))
(THIOSULFATES, metab.
extracellular thiosulfate space, clin. value of determ. in water-electrolyte disord. (Pol))

MAZUROWA, Aleksandra; CHODERA, Leon; SMARSZ, Czeslaw

Effects of shifting of blood serum electrolytes on ECG curve during hypoglycemia and after adrenalin administration. Polskie arch. med. wewn. 28 no.4:541-543 1958.

1. Z I Kliniki Chorob Wewnetrznych A.M. w Poznaniu. Kierownik: prof. dr med. S. Kwasniewski.

(HYPOGLYCEMIA,
eff. on blood electrolytes & ECG (Pol))
(EPINEPHRINE, eff.
on ECG in relation to blood electrolytes (Pol))
(ELECTROCARDIOGRAPHY,
eff. of hypoglycemia & epinephrine admin. in relation to blood electrolytes (Pol))
(ELECTROLYTES, in blood
eff. of hypoglycemia & epinephrine admin. in relation to ECG (Pol))

CHODERA, Leon; MAZUROWA, Aleksandra; SMARSZ, Czeslaw

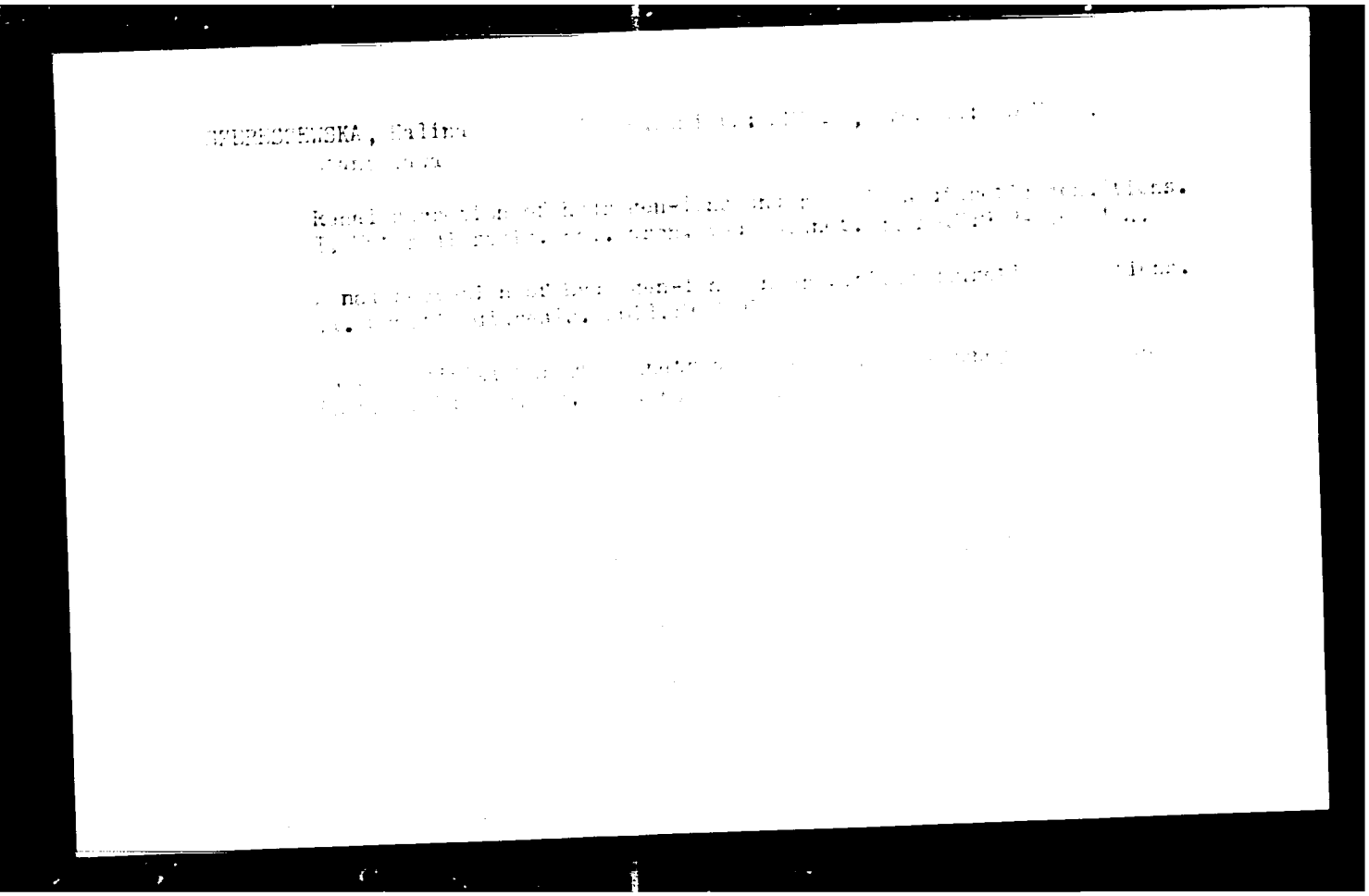
On the investigations on the ralationships between metabolic, electrolytic and carbohydrate exchange and electrocardiographic changes in the so-called energy-dynamic cardiac insufficiency. III. Hypoglycemic states interrupted by adrenalin. Polskie arch.med.wewn. 29 no.5:581-587 '59.

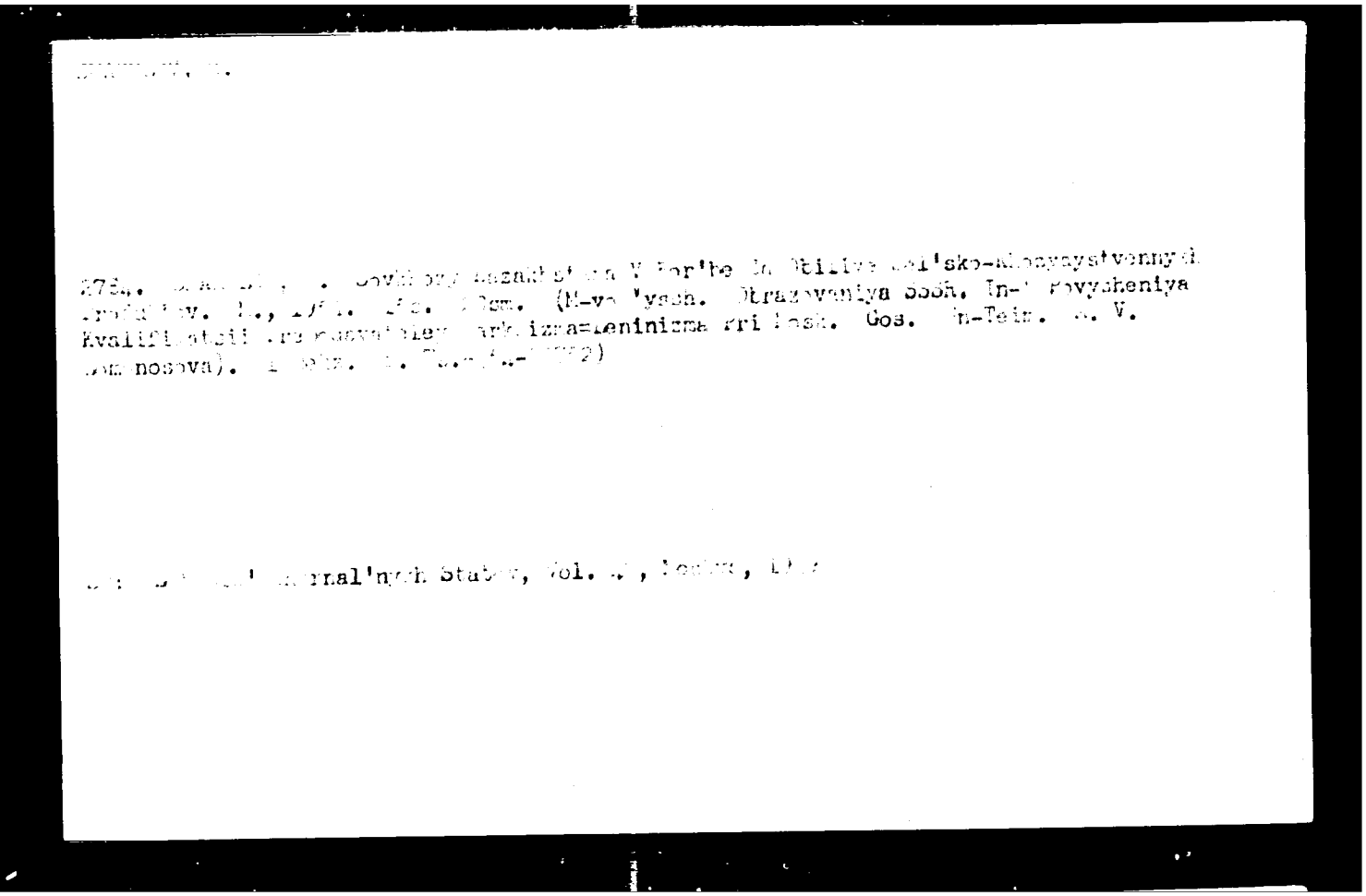
1. Z I Kliniki Chorob Wewnetrznych A. M. w Poznaniu Kierownik: prof. dr med. S. Kwasniewski.
(ELECTROCARDIOGRAPHY pharmacol)
(HYPERINSULINISM)
(EPINEPHRINE pharmacol)
(WATER ELECTROLYTE BALANCE)

JASINSKI, Kazimierz; RASZEJA-WANIC, Bozena; KUBACKI, Andrzej; SMARSZ, Czeslaw

Effect of prolonged application of massive doses of cortisone on the osseous system and certain biochemical and histological changes in rabbits. Polskie arch.med.wewn. 30 no.6:839-841 '60.

1. Z I Kliniki Chorob Wewnetrznych A.M. w Poznaniu Kierownik: prof. dr med. S.Kwasniewski.
(CORTISONE pharmacol)
(BONE AND BONES pharmacol)





SMARYSHEV, M.D. (Leningrad)

Approximate computation of concentration coefficients of continuous compensated systems. Akust. zhur. 9 no.2:246-247 '63. (MIRA 16:4)

(Sound)

L 9949-65 EWT(1)/EEC-4/EEC(t)/EEC(b)-2/FCS(k) Pac-4/Pae-2/P1-4/PJ-4/P1-4
SSD/AFETR/RAEM(a)/AFWL/ASD(a)-5/BSD/AFTC(b)/ESD(gs)/ESD(t)/RAEM(t) NR
ACCESSION NR: AP4045494 S/0109/64/009/009/1694/1696

AUTHOR: Smary*shev, M. D.

TITLE: Maximization of the directive gain of an antenna array 25 B

SOURCE: Radiotekhnika i elektronika, v. 9, no. 9, 1964, 1694-1696

TOPIC TAGS: antenna, antenna array, directive gain

ABSTRACT: As G. Gilbert and S. Morgan do not indicate in their article (Bell System Techn. J., 1955, 34, 3, 637) a permissible value of antenna sensitivity to random errors, their treatment of the problem does not provide a method for its rigorous solution. Hence, the author develops a new method of exciting the antenna which ensures a maximum mathematical expectation of the directive gain, with randomly applied excitation errors having a specified value. A formula for the mathematical expectation as an explicit function of excitation coefficients is developed, as well as a set of linear algebraic equations whose

Card 1/2

L 9949-65
ACCESSION NR: AP4045494 0

solution produces the excitation coefficients ensuring the max directive gain.
Orig. art. has: 7 formulas.

ASSOCIATION: none

SUBMITTED: 09Oct63 ENCL: 00

SUB CODE: EC NO REF SOV: 000 OTHER: 001

Card 2/2

L 31073-65 EWT(1)/EEC-4/EEC(t)/EEC(b)-2/FCS(k) Pac-4/Pi-4/Pj-4/Pl-4/Peb WR

ACCESSION NR: AP5006184 S/0046/65/011/001/0124/0125

35
B

AUTHOR: Smaryshev, M. D. (Leningrad)

TITLE: The array factor of a continuous and transparent acoustical volume antenna

SOURCE: Akusticheskiy zhurnal, v. 11, no. 1, 1965, 124-125

TOPIC TAGS: acoustic antenna, antenna theory, antenna model

25B

ABSTRACT: The author analyzes a hypothetical acoustical antenna array whose elements are confined to a space within the right circular cylinder. The aim of the analysis is to determine efficiency of the antenna as a function of the space it occupies. The antenna elements are considered to be similar and distributed symmetrically and evenly, with the distance between adjacent elements less than half the wavelength, i.e., the antenna can be considered continuous. The elements would be excited with phase differences producing constructive interference along the cylinder axis. The analysis consists in determining the optimal ratio of cylinder height to cylinder diameter and the ratio of both to the wavelength. The formulas used for this purpose show that the array factor is proportional to the height-diameter ratio and diminishes with increasing diameter and wavelength roughly according to a square law, the dependence being steeper at low values of the diameter-wavelength

Card 1/2

L 31073-65

ACCESSION NR: AP5006184

ratio. For instance, at a diameter-wavelength ratio of 0.5 and a height-wavelength ratio of 10, the concentration coefficient is 9 times larger than for a flat cylinder of the same cross section. The differences, however, are less with larger cross sections, since at a zero height-diameter ratio the concentration coefficient decreases only to its limit value of 0.5. The concentration coefficient, on the other hand, is also determined by the width of the directionality characteristic of the antenna at its first zero level. Since the directionality characteristic of the antenna under consideration depends on two directionality characteristics (that of a flat ring and that of the generatrix), its width will coincide with the steeper of the two. Here again, the characteristic in general grows steeper with a decreasing height-diameter ratio. The analysis explains the low concentration values of large cross sections of the acoustic antenna arrays. Orig. art. has: 2 figures. [FP]

ASSOCIATION: none

SUBMITTED: 04Sep63 ENCL: 00 SUB CODE: GP, EC

NO REF SOV: 000 OTHER: 000 ATD PRESS:3198

Card 2/2

SMASHEVSKIY, N.D.

Natural antivitamin of pantothenic acid. Nauch. dokl. vys. shkoly; biol. nauki no.1:182-186 '66. (MIRA 19:1)

1. Rekomendovana kafedroy botaniki Khabarovskogo pedagogicheskogo instituta. Submitted October 20, 1964.

SHUYUKIN, V. I.

"Oxygen Absorption Under Hypothermia Conditions," a paper from the book Theses of the Reports of the Scientific Session of the Military Medical Academy im. S. M. Kirov, Tezisy Dokladov Nauchnoy Sessii, 29 Oct-2 Nov 1956, Leningrad.

SALEK, Jan; REHAK, Frantisek; SMAT, Vaclav

Long-term investigations on surgical therapy of bronchogenic carcinoma. Sborn. lek. 61 no.4:107-115 Apr 59.

1. II. chirurgicka klinika fakulty vseobecneho lekarstvi Karlovy university v Praze, prednosta akademik J. Divis. As. dr. J.S., II. chirurgicka klinika, U nemocnice 2, Praha 2.

(LUNG NEOPLASMS, surgery,
bronchogenic cancer, remote results (Cz))

LHOTKA, J.; CHMEL, K.; FRIEDBERGER, V.; SMAT, V.; BOREK, Z.

Traumatic perforation of the esophagus. Rozhl.chir. 40 no.2-3: 147-149 Mr '61.

1. II.chirurgicka klinika FVL, prednosta doc.dr. J.Lhotka.
(ESOPHAGUS wds & inj)

SMAT, Vaclav

An unusually tortuous thoracic aorta. Rozhl. chir. 40 no.7:496-498 Jl '61.

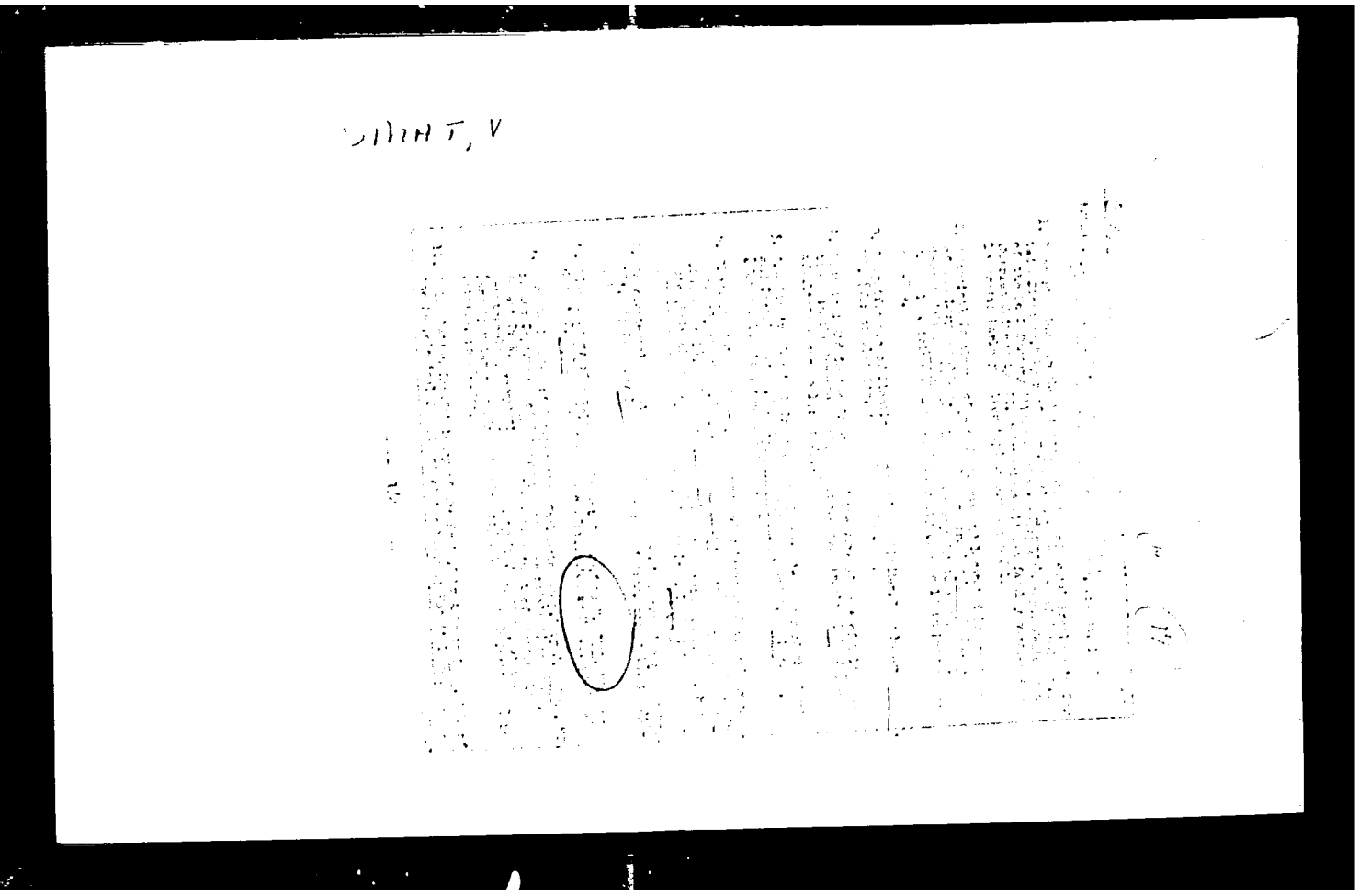
1. II chirurgicka klinika KU v Praze, prednosta doc. dr. J. Lhotka.

(AORTA abnorm)

SMAT, V.; POSPISIL, M.; VINCENCOVA, B.

Some indications for surgical treatment of inflammations of the gall-bladder. Cesk. gastroent. vyz. 15 no.8:607-611 D '62.

1. II. chirurgicka klinika v Praze, prednosta prof. dr J. Lhotka.
(CHOLECYSTECTOMY)



MOTLIK, K.; JANOUSKOVA, M.; HRADEC, E.; SMAT, V.

Some macroscopic indices on the distribution of medulla in human adrenal glands (morphological contribution to the problem of so-called medullectomy). Rozh. chir. 43 no.4:233-242 Ap '64.

1. II. patologickoanatomicky ustav (prenosta prof. dr. V. Jedlicka) a II. chirurgicka klinika (prednosta prof. dr. J. Lhotka) fakulty vseobecneho lekarstvi KU [Karlova Universita] v Praze.

SMATANA, Anton, inz.

Modern methods of traction vehicle servicing at the locomotive depots of the Czechoslovak Railways. Zel dop tech 11 no.3:80-81 '63.

SMATKOV, Ya.P., inzhener.

Scientific research and experimental construction in municipal transportation. Gor. khoz. Mosk. 30 no.1:18-21 Ja '56. (MLRA 9:6)
(Transportation)

[illegible]

"[illegible] crop [illegible] system.", [illegible], ([illegible]), Vol. [illegible], [illegible], [illegible]. 1953, [illegible])

So: Monthly List of East European Accessions, Vol. 2, #3, Library of Congress, August 1953, Uncl.

Soil humus problem. II. Amino-acid composition of the hydrolyzates of humic acids in different soil types. Lubomír Pavel, Jaroslav Koloušek and Václav Šmatlák (Vysoká škola zemědělská, Prague). *Sborník Československ. Akad. Zeměděl. Ved.* 27A, 207–12(1954); cf. *C.A.* 48, 7829*h*.—The qual. amino-acid compn. of the acid hydrolyzates of humic acids isolated from different soil types (chernozem, brown, and podzolic soils) was detd. by paper partition chromatography. The amino acids found were: cysteic acid, aspartic acid, glutamic acid, dihydroxyphenylalanine, serine, glycine, threonine, α-alanine, lysine, arginine, proline, valine, and methionine, methionine-sulfone, tyrosine (trace) and 2 not identified substances. The org. S of humic acids was estd. to be a structural element of cysteic acid and methionine. There was no difference in qual. amino acids compn. in different soil types. The amino acids in the acid hydrolysates of humic acids show the polypeptide chain structure.

Jan Micka

(2)

SMATOV, Zh.

Species of bloodsucking midges (Culicoides) in the Ili River basin. Trudy Inst. zool. AN Kazakh. SSR 22:205-207 '64.
(MIRA 17:12)

L 44805-66
ACC NR: AP6006152 (A) SOURCE CODE: CZ/0078/65/000/010/0011/0011

INVENTOR: Soucek, Jiri (Engineer; Benesov u Prahy); Hampl, K. (Vlasim); Smaus, F. (Benesov u Prahy); Skvor, J. (Engineer; Uvaly); Bezouska, V. (Pruhonice); Hrdlicka, J. (Prague); Pokorny, O. (Prague); Zavazal, Z. (Prague); Smetana, J. (Prague)

72
B

ORG: none

TITLE: Thermal expansion compensator for semiconductor system [CZ Pat. No. PV 1827-64]

SOURCE: Vynalezy, no. 10, 1965, 11

TOPIC TAGS: electrode, semiconductor device, thermal expansion

ABSTRACT: The electrode of the housing of a semiconductor system which is vacuum (hermetically) tight secured by means of the electrical insulating part to the base housing forming the other electrode which has positioned inside it a channel or duct sealed from the outside to which is introduced inside the housing a positioned expansion member constituting an electrical connection between the electrode and the semiconductor system feature in the device described here. The electrodes protrude from the housing in such a way that to the expansion member fixed to it can be secured deformation electrodes from the outside and that a conductor can be attached to them

Card 1/2

TOPEKHA, Petr Pavlovich; KOVYZHENKO, V.V., otv. red.; SMAVZYUK, O.L., red.

[Problems of the unity of the trade-union movement in modern Japan] Voprosy edinstva profsoiuznogo dvizheniia v sovremennoi IAponii. Moskva, Izd-vo "Nauka," 1964. 162 p. (MIRA 17:4)

Smayevskiy, V. Ye.

USSR/ Physics - Luminescence

Card 1/1 Pub. 43 - 31/62

Authors : Klimovskaya, K. L.; Vishnevskiy, V. N.; and Smayevskiy, V. Ye.

Title : About the luminescence of hydrazide of triaminophthalic acid

Periodical : Izv. AN SSSR. Ser. fiz. 18/6, 694-695, Nov-Dec 1954

Abstract : The changes in chemoluminescence intensity were investigated during the oxidation of yellow and white triaminophthalic hydrazide with hydrogen peroxide and potassium ferricyanide in an alkaline medium. The effect of hydrogen peroxide concentrations in the medium of the luminescence intensity is explained. The phenomena observed during the luminescence of the white and yellow hydrazines are described.

Institution: The Iv. Franko State University, L'vov

Submitted : .....

ZABUGIN, F.D.; SMAYKINA, M.G. (Moskva)

Two cases of toxoplasmosis. Zhur. nevr. i psikh. 60 no.3:312-314 '60. (MIRA 14:5)

(TOXOPLASMOSIS)

ZABUGIN, F.D.; SMAYKINA, M.G. (Moskva)

Toxoplasmosis and its control. Fel'd. akush. 26 no.12: 24-27 D '61. (MIRA 14:12)

(TOXOPLASMOSIS)

SMAYKINA, M.G.

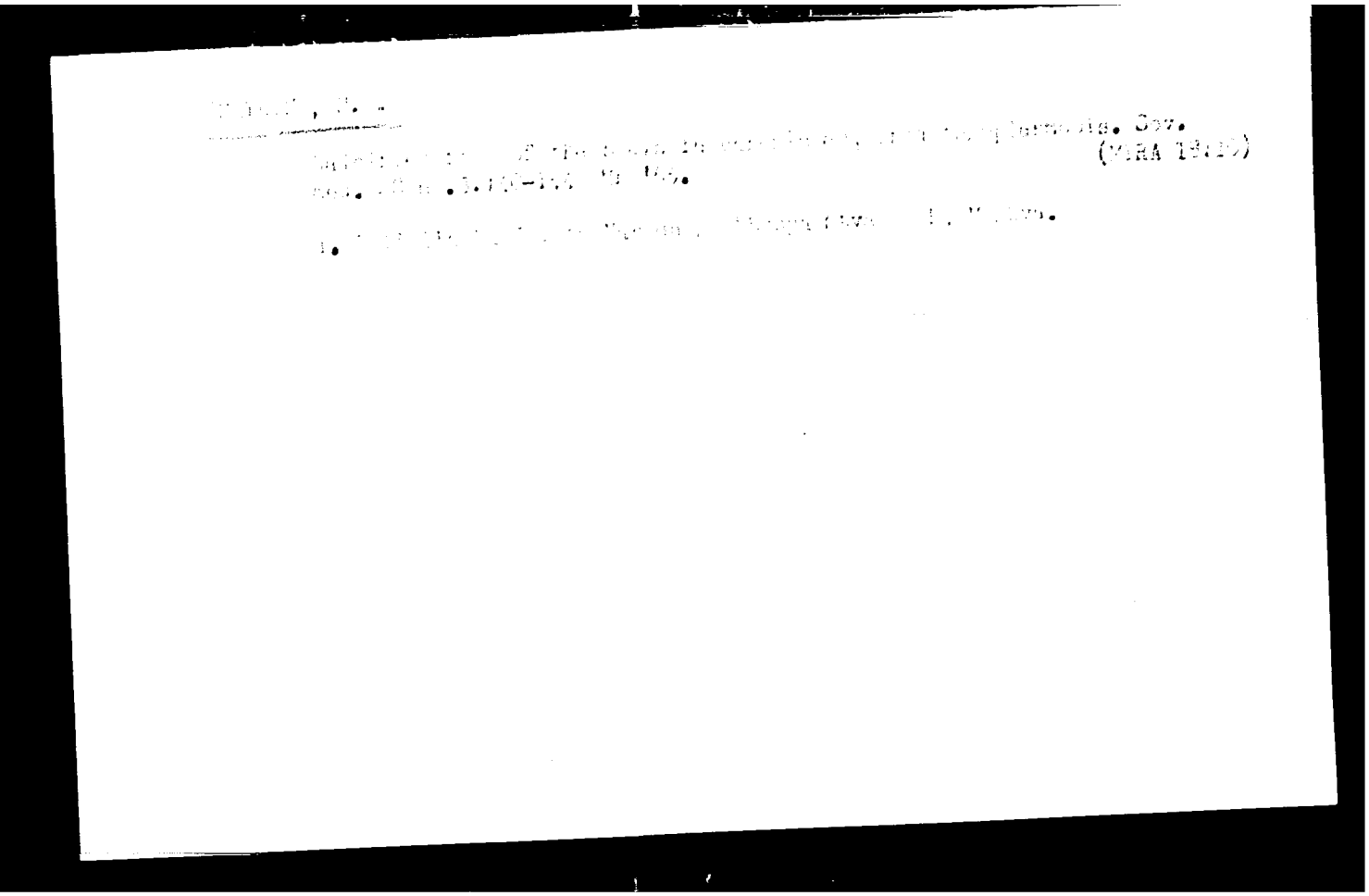
X-ray diagnosis of chronic forms of acquired toxoplasmosis. Trudy TSIU 80:142-144 '69.

Methodology of X-ray examination of the skull in patients with acquired toxoplasmosis. Ibid.:145-147 (MIRA 18:11)

ZABUGIN, F.D.; SMAYKINA, M.G.

Clinical aspects of acquired toxoplasmosis (chronic form).
Zhur. nevr. i psikh. 62 no.3:413-416 '62. (MIRA 15:3)

1. Poliklinika Gosplana SSSR, Moskva.
(TOXOPLASMOSIS)



SMAYLIS, A. I., Cand Med Sci -- (diss) "Complications in Lung Operations (According to Data of the Inst of Surgery Acad Med Sci USSR)." Mos, 1957. 12 pp; 1 sheet of tables (Min of Health USSR, Central Inst for the Advanced Training of Physicians), 200 copies (KL, 48-57, 110)

SMAYLIS, A.I.; TSUKERMAN, B.M.

Diagnosis and therapy of pulmonary artery embolism. [with summary in English] Eksp. khir. 2 no.1:42-48 Ja-F '57 (MLRA 10:4)

1. Iz Instituta khirurgii imeni A.V. Vishnevskogo (dir.-chlen-korrespondent AMN SSSR prof. A.A. Vishnevskiy) AMN SSSR.
(PULMONARY EMBOLISM AND THROMBOSIS, exper. diag. & surg. in dogs) (Rus)

KRAKOVSKIY, N.I., professor; SMAYLIS, A.I. [redacted]

Complications of pulmonary surgery. Sov.med.21 no.2:3-6 F '57.
(MLRA 10:6)

1. Iz Instituta khirurgii imeni A.V.Vishnevskogo (dir. - chlen-korrespondent Akademii meditsinskikh nauk SSSR prof. A.A.Vishnevskiy) Akademii meditsinskikh nauk SSSR.
(LUNGS, surg.
compl., statist.)

SMAYLIS, A.I.

SMAYLIS, A.I.

Complications of lung surgery. Khirurgiia 33 no.4:74-80 Ap '57. (MLRA 10:7)

1. Iz 2-go otdeleniya (zav. - prof. G.V.Alipov) Instituta khirurgii imeni A.V.Vishnevskogo AMN SSSR (dir. - chlen-korrespondent AMN SSSR prof. A.A.Vishnevskiy)
(LUNGS, surg.
postop. compl., prev., diag. & surg.)

SMAYLIS, A.I.

Air embolism in pulmonary surgery. Sov. med. 23 no.3:63-66 Mr. '59.
(MIRA 12:4)

1. Iz Instituta khirurgii imeni A.V. Vishnevskogo (dir. - deystvitel'nyy chlen AMN SSSR prof. A.A. Vishnevskiy) AMN SSSR.
(PNEUMONECTOMY, compl.
air embolism (Rus))
(EMBOLISM, case reports,
post-pneumonectomy air embolism (Rus))

[illegible] prof.; SMAYLIS, A.I. [Smailis,

[S]udden arrest of effective blood circulation. Sov. med. 28 no.10:5-10 O '65. (MIRA 18:11)

1. Kafedra gospital'noy terapii i gospital'noy khirurgii [K]aunasskogo meditsinskogo instituta. 2. Chlen-korrespondent AMN SSSR (for [illegible]).

SMAYLOV, V.P.

Forces arising in the process of forcing the head portion of shields and pipelines into the ground. Vod. i san. tekh. no.10: 19-26 O '57. (MIRA 10:11)
(Tunneling)

AFANAS'YEV, I.B.; OVAKIMYAN, G.B.; YEREMINA, T.N.; VORONINA, I.B.; SMAYE'S, L.K.; BEER, A.A.

Synthesis of diamines, dicarboxylic acids, and chloro-substituted monocarboxylic acids based on telomers of chlorobromomethane with ethylene. Khim.prom. no.10:709-712 O '62. (MIRA 15:12)

(Amines)
(Acids, Organic)
(Polymers)

GIL'MAN, I.M.; KHAYLIS, S.S.

Study of the electric sensitivity of eyes in school-age children on the southern coast of the Crimea. Uch. zap. KGPI no.16:223-226 '61. (MIRA 19:2)

SMAYSHKINA, K.G.

New species of Foraminifers in lower Cretaceous sediments of Daghestan. Trudy Geol.inst.Dag.fil. AN SSSR 1:82-91 '57. (MIRA 14:9)

(Daghestan--Foraminifera, Fossil)

SMAZAK, S.

"Using Highly Developed Agrotechnics in Plant Breeding." p. 160, Bratislava, Vol. 6, 1951.

SO: East European Accessions List, Vol. 3, No. 9, September 1954, Lib. of Congress

ACC NR: AP6021789 SOURCE CODE: UR/0413/66/000/012/0052/0052

INVENTORS: Smazhevskaya, Ye. G.; Rivkin, V. I.; Podol'nor, N. A.

ORG: none

TITLE: A ceramic material. Class 21, No. 182779

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 12, 1966, 52

TOPIC TAGS: ceramic material, ceramic technology, ceramic product property, piezoelectric ceramic, piezoelectric effect, piezoelectric property, potassium compound

ABSTRACT: This Author Certificate presents a ceramic material for producing piezoelectric elements and containing PbO, Bi_2O_3, and TiO_2. To increase the interval of working temperatures for the piezoelectric elements, aside from the above components, K_2O is introduced into this material. K_2O is added in the following molar proportion to the other ingredients:

$PbO : Bi_2O_3 : K_2O : TiO_2 = (1 - X) : \frac{X}{4} : \frac{X}{4} : 1$ at $X = 0.3 - 0.6$.

SUB CODE: 11,20/ SUBM DATE: 18Jun64

Card 1/1 UDC: 621.315.61:537.226.33

[redacted], YE. I.

"Investigation of the Process of Hot Casting Ceramic Articles Under Pressure."
[redacted] in Higher Education USSR, Moscow Order of Lenin Chemicotechnological Inst imeni
D. I. Mendeleyev, Moscow, 1955
(Dissertation for the Degree of Candidate of Technical Sciences)

SO: Knizhnaya Letopis', No, 6 Aug 55

24(3)
AUTHORS: Rez. I. S. Smazhevskaya, Ye. G., SOV/48-22-12-28/33
Kachkacheva, M. M.

TITLE: On the Problem of Piezoelectric Ceramics Production for High-Temperature Operations (K voprosu o poluchenii p'yezokeramiki dlya raboty pri povyshennykh temperaturakh)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1958, Vol 22, Nr 12, pp 1520-1525 (USSR)

ABSTRACT: In the present paper the following compounds were obtained and their properties investigated: solid solutions of $(Ba,Ca)TiO_3$, $(Ba,Pb)TiO_3$; $(Ba,Ca,Pb)TiO_3$, $Pb(Ti,Zr)O_3$, lead niobate and solid solutions on the basis of the latter. Since in publications there are no details on $PbNb_2O_6$, a piezoelectric with the highest Curie (Kyuri) temperature (570°) and its formation conditions, this reaction was subjected to a complex thermographic investigation in the GIEKI at Kh. S. Valeyev's laboratory. G. A. Smolenskiy and V. A. Isupov offered suggestions as to the selection of compositions for producing piezoelectric ceramics on the basis of $PbNb_2O_6$. The principal experimental results are given in the

Card 1/3

table. The analysis of the data obtained reveals that solid solutions on the basis of $PbNb_2O_6$ are the most appropriate compositions for electromechanical high-temperature transformers. Solid $PbZrO_3$-$PbTiO_3$-solutions come next to them; however, considerable technical complications are involved in the production. Solid $(Ba,Ca)TiO_3$ and $(Ba,Ca,Pb)TiO_3$ solutions can be used in a subpolarization up to 120-130°. Solid $(Ba,Pb)TiO_3$ solutions probably will not be suitable, unless the homogeneity of the material can be increased. Furthermore the low dielectric stability of these ceramics at polarization temperatures must be increased by means of a corresponding modification of the composition, i.e., by reduction of the conductivity loss that complicates the piezoelectric excitation of electromechanical transformers of this material. The authors express their gratitude to I. Z. Rusakov for valuable advice and to the cooperators of the TsNILP L. B. Germayze, A. P. Yermakova, A. V. Konstantinov, N. A. Podol'ner, V. A. Rovitskiy and A. A. Filimonov for helpful assistance.

... of the ... Radioelectronics, Council of Ministers, USSR

85023

S/048/60/024/010/033/033
B013/B063

9,6180

AUTHORS: Kachkacheva, M. M., Dryabchuk, A. A., Rusakov, L. Z., Smazhevskaya, Ye. G.

TITLE: High-temperature Piezoelectric Acceleration Transmitters

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 10, pp. 1304-1306

TEXT: This article gives a description of a new acceleration transmitter. The sensitive element was made of the piezoceramic material $(Pb_{0.6}Ba_{0.4})Nb_2O_6$. A general view of the transmitter is shown in Fig. 1, its design is given in Fig. 2. Due to its compact design the transmitter stands an overload of up to 300 g. It weighs about 50 g, and has a sensitivity of 10 mv/g. The sensitivity for the transverse vibration component is 5 - 6% lower than the axial sensitivity. The frequency characteristics and the temperature dependence of sensitivity are illustrated in Fig. 3 and Fig. 4, respectively. Data for piezoelectric

Card 1/2

05800

9,2180 (3203, 1162)
24,7500 (1043, 1160)

S/048/60/024/011/024/036
B006/B060

AUTHORS: Smazhevskaya, Ye. G. and Podol'ner, N. A.

TITLE: Some Results of a Study of the PbO - Nb_2O_5 - Nd_2O_3 System

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 11, pp. 1394-1397

TEXT: This is the reproduction of a lecture delivered at the Third Conference on Ferroelectricity which took place in Moscow from January 25 to 30, 1960. The authors studied systems consisting of lead metaniobate and various metal oxides (oxides of Al, Zr, Ti, La, Sm, W, Ge, Er, Y, Dy, and Nd) at concentrations between 0.5 and 1 mole% with a view to stabilizing the seignettoelectric phase and to reducing the "seignettoelectric hardness" of $PbNb_2O_6$ (at the highest possible Curie temperature). Preliminary experiments showed that specimens with neodymium admixture exhibited a considerable piezoelectric effect, and these specimens were therefore examined most thoroughly. Specimens with 0.5, 1, 3, 4, 5, 7, and 10 mole% Nd_2O_3 were prepared and the

Card 1/3